

Service Bulletin

**Service Bulletin:** SB412-6004; Bell 412 Air Conditioner System

**Subject:** Installation of Forward Drain in 412 Air Conditioner Aft Evaporator.

**Date:** 6 May, 2004

**Applicability:** Bell Helicopter Models 412 EP, 412 HP, 412 SP equipped with the Air Comm Corporation Air Conditioner System Installed prior to 30 March 98.

**Reference:**

1. F.A.A./S.T.C. #SR00066DE, Bell Helicopter 412 Air Conditioning System.
2. 412AC-604 Aft Evaporator Installation Drawing (Rev. E)
3. 412AC-6004 Aft Evaporator Assembly Drawing (Rev A)

**Compliance:** Is at the discretion of the operator.

**I. Discussion:**

It has come to our attention that under certain atmospheric conditions, condensation build-up from the aft evaporator coil may enter the cabin area through the inlet screen located the center of the cabin roof. This can occur when the aircraft is in a nose low attitude.

The addition of a forward drain hole in the aft evaporator housing prevents the build up of water in the forward section of the housing in nose low attitudes.

**II. Approval:**

The Technical aspects of this Service Bulletin have been FAA approved.

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**III. Purpose:**

The Purpose of this bulletin is to explain the modifications necessary to install a drain hole and hardware in the forward right hand corner of the ACC / Bell 412 air conditioner aft evaporator assembly to prevent build up of water in this evaporator in nose low attitudes.

**IV. Bill of Materials:**

To be installed:

Item	Part Number	Description	Qty.
1	412AC-6004-11	Cover	1
2	AN525-10R6	Screw	1
3	MS21042L3	Nut	1
4	NAS1149F0316P	Washer	1
5	SX01058	Teflon Washer	1

Contact the ACC Service Department to obtain the parts listed above at no charge to complete this Service Bulletin at: Phone 303-440-4075, or Fax 303-440-6355.

**V. Modification:**

**NOTE**

Removal of the forward transmission cowling is required to gain access to the Aft Evaporator assembly to accomplish this modification.

**NOTE**

It is **not** necessary to remove the aft evaporator to accomplish this modification.

1. Remove the AN525-10R8 Screws (14 Pls.) around the top of the aft evaporator housing lid, and remove evaporator lid.

**NOTE**

The aft evaporator housing lid is sealed with RTV adhesive, and it maybe necessary to run a razor blade or equivalent between the mating surfaces to release the lid from the housing.

2. Locate the forward right hand corner of the aft evaporator housing as shown in figure 1-1, Detail "E".
3. Mark the forward right hand corner of the aft evaporator housing as shown in figure 1-2, Detail "E", and drill as shown.
4. Install the SX01058 Teflon Washer on the AN525-10R6 Screw.

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5. Next Install the 412AC-6004-11 Cover on the AN525-10R6 Screw.
6. Install the AN525-10R6 Screw, SX01058 Teflon Washer, and 412AC-6004-11 Cover through the upper (.191 dia.) hole in the forward surface of the aft evaporator housing (Figure 1-2, Detail "E").
7. Install the NAS1149F0316P Washer, and MS21042L3 Nut on the AN525-10R6 Screw, and torque nut to 30 - 40 inch lbs.

**NOTE**

Insure that the 412AC-6004-11 Cover is installed as to cover the lower hole (.18 dia.) on the outside of the forward surface of the aft evaporator housing.

8. Reinstall the Aft Evaporator Lid, and the lid attaching screws.

**NOTE**

Apply a thin coat of RTV adhesive to the mating surface of the Aft Evaporator and the Aft Evaporator Lid prior to installation of Lid to the Evaporator housing.

9. Reinstall forward transmission cowling, and return the air conditioner to service.

**Weight and Balance:**

This change is negligible and has no effect on the weight and balance of the system.

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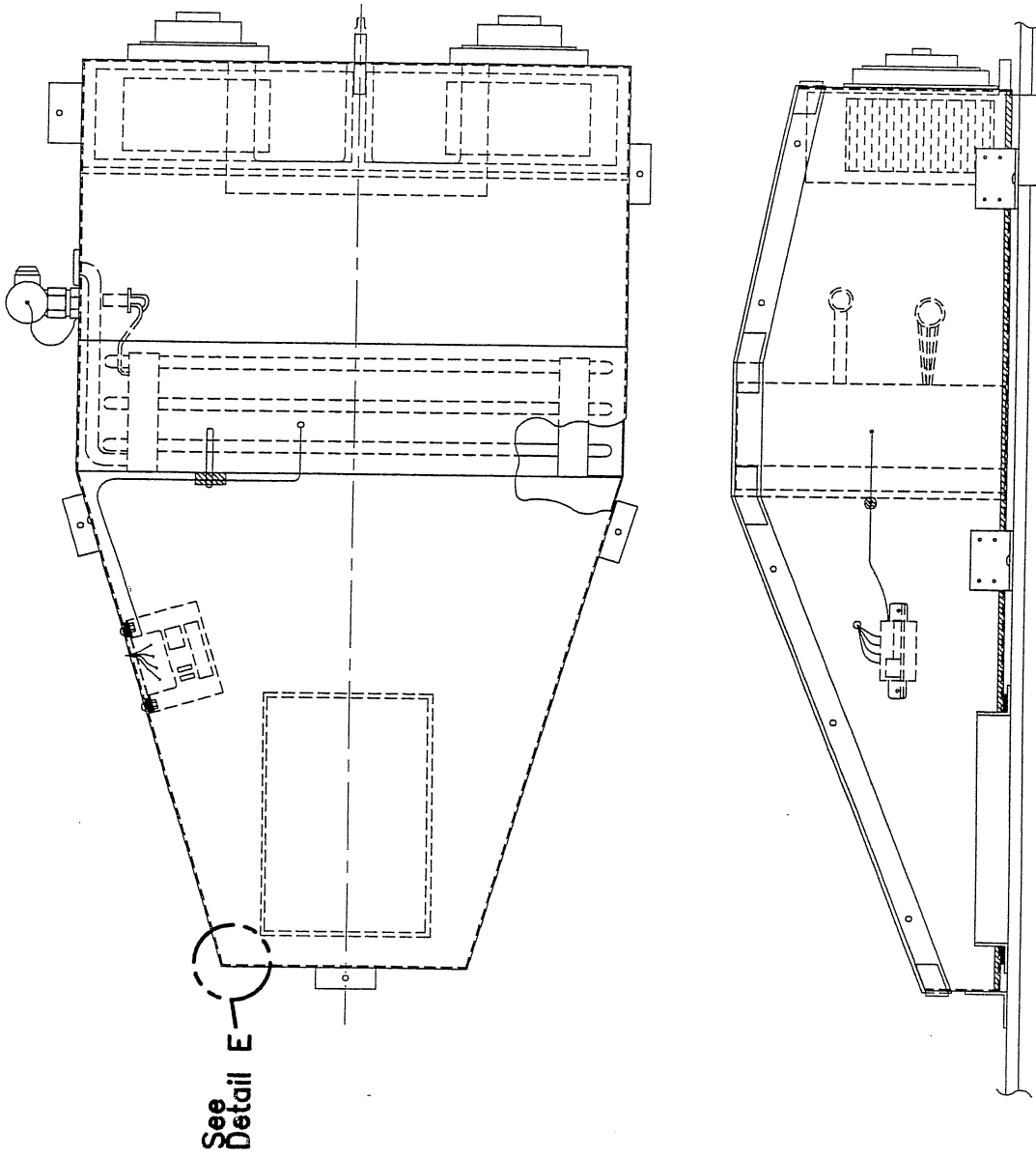


Figure 1-1 View looking Inboard & Down

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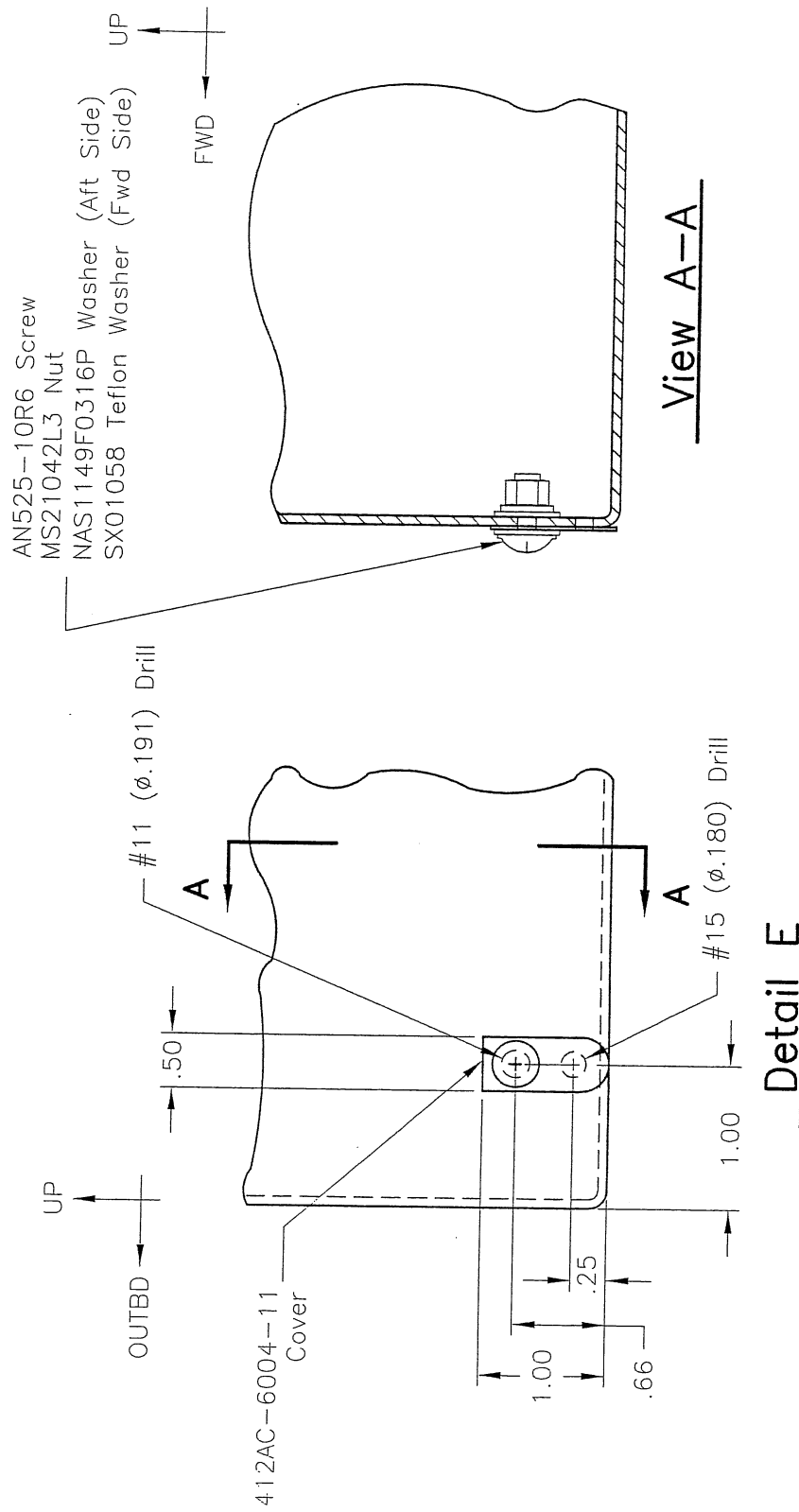


Figure 1-2 View of Detail "E"

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